

STAVRAKI, L.N.; BORODACHEV, M.A.

Deformation calculation and the calculation of the general rigidity of frames by a method of electric modeling. Vych. i org.tekh. v stroi. i proekt. no.2:40-45 '64. (MIRA 18:10)

1. Kuybyshevskiy inzhenerno-stroitel'nyy institut (for Stavski).
2. Vsesoyuznyy institut "Ognyargostroy", A. Kuybyshev (for Borodachev).

SOV/124-58-2-2098

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 2, p 85 (USSR)

AUTHOR: Borodachev, N.M.

TITLE: Some Problems of the Calculation of Continuous Mechanical Systems
From the Point of View of the Propagation of Stress Waves (Nekotoryye
voprosy rascheta nepreryvnykh mekhanicheskikh sistem s točki
zreniya rasprostraneniya voln napryazheniya)

PERIODICAL: Tr. Kuybyshevsk. inzh.-stroit. in-t, 1957, Nr 4, pp 125-143

ABSTRACT: Examination of the problem of the propagation of longitudinal
and flexural deformations along a bar, wherein the inertia forces and
the internal-friction forces are disregarded. It is only natural that
all results thus obtained for flexural waves are invalid.

V. L. Biderman

Card 1/1

BORODACHEV, N.M., Cand Tech Sci -- (diss) ^{On} "~~Concerning~~ the
solution of the plane problem of ^{the} dynamic theory of elasticity
for ~~a half-area~~ ^{an area}." Kuybyshev, 1958, 10 pp (Min of Higher Education
USSR. Kuybyshev Industrial Inst im V.V. Kuybyshev) 115 copies
Bibliography at end of text (¹²~~10~~ titles) (KL, 27-58, 108)

BORODACHEV, N.M., assistant

Solution of a dynamic problem of sloping shells. Nauch.dokl.
vys.shkoly; stroi. no.2:105-108 ' 58. (MIRA 12:1)
(Elastic plates and shells)

BORODACHEV, N.M. [Borodachov, M.M.] (Kuybishev)

Longitudinal vibrations of elastic and viscous rods [with summary
in English]. Prikl. mekh. 4 no. 2:176-181 '58. (MIRA 11:8)

1. Kuybishevs'kiy inzhenerno-budiveln'iy institut.
(Elastic rods and wires--Vibration)

BORODACHEV, N.M. (Kuybyshev)

Generalized formula for the representation of the product of originals. Prikl.mat. i mekh. 22 no.5:706 S-O '58. (MIRA 11:11)
(Mathematics--Formulas)

SOV/49-59-11-18/28

AUTHOR: Borodachev, N. M.

TITLE: On Finding a General Solution of the Dynamic Problem
of an Elastic Half-space

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya
1959, Nr 11, pp 1684-1686 (USSR)

ABSTRACT: A method of integral transformation is described. The equation of motion of the isotropic elastic medium is defined as Eq (1), where u, v, w - components of dislocation in the Descartes system of co-ordinates, ρ - density of medium, λ, μ - constants, θ - volumetric expansion. The vibration in the half-space $z \geq 0$ starts generating at an instant $t = 0$ for conditions described by Eq (2). The function $u(x, y, z, t)$ can be defined as Eq (3), where the functions A_1, A_2 , and A_3 are found from the boundary conditions, Eq (4). These functions can be determined from the three equations of Eq (5). For example, if $\sigma_z(x, y, 0, t)$, $\tau_{xz}(x, y, 0, t)$ and $\tau_{yz}(x, y, 0, t)$ are known, then the last three equations of Eq (5) will define the

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SOV/49-59-11-18/28

On Finding a General Solution of the Dynamic Problem of an Elastic Half-space

magnitude of A_1 , A_2 , and A_3 . There are 7 Soviet references.

ASSOCIATION: Kuybyshevskiy inzhenerno-stroitel'nyy institut imeni A. I. Mikoyana (Kuybyshev Institute of Engineering and Construction imeni A. I. Mikoyan)

SUBMITTED: March 1, 1958 ✓

Card 2/2

BORODACHEV, N. M.

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

35. A. A. Borodachev (Mukhomorov): On the solution of the dynamic problem for a half-space under conditions of axial symmetry.
36. A. A. Borodachev (Mukhomorov): Anisotropic plates with discontinuous supports.
37. A. A. Borodachev (Mukhomorov): On the essential non-linearity of certain problems on column stability.
38. A. A. Borodachev (Mukhomorov): On the determination of the stability of plates under alternating transverse loads.
39. A. A. Borodachev (Mukhomorov): An experimental investigation of the stability of plates under alternating transverse loads.
40. A. A. Borodachev (Mukhomorov): On the stability of constructional elements under alternating loads.
41. A. A. Borodachev (Mukhomorov): The field of application of anisotropy.
42. A. A. Borodachev (Mukhomorov): The state of stress of lamellar systems of regular configuration.
43. A. A. Borodachev (Mukhomorov): Rheological properties of lubricants as a basis of their rheological characteristics.
44. A. A. Borodachev (Mukhomorov): Application of methods of mechanics to the investigation of shells.
45. A. A. Borodachev (Mukhomorov): Determination of stresses and deformations in welded bodies.
46. A. A. Borodachev (Mukhomorov): The flow of bitumens and filled bitumens in pipes.
47. A. A. Borodachev (Mukhomorov): Applications of the theory of elasticity to the investigation of the behavior of structurally compressed bodies under alternating loads.
48. A. A. Borodachev (Mukhomorov): A method of determining the state of stress.
49. A. A. Borodachev (Mukhomorov): A method of determining the state of stress.
50. A. A. Borodachev (Mukhomorov): Basic peculiarities of the mechanical properties of plastic lubricants.
51. A. A. Borodachev (Mukhomorov): Fundamentals of the theory of visco-plasticity.
52. A. A. Borodachev (Mukhomorov): The solution of dynamic contact problems for foundations using a simplified model.
53. A. A. Borodachev (Mukhomorov): On the equilibrium equations of thick elastic plates.
54. A. A. Borodachev (Mukhomorov): The creep of ice and frozen soils under combined stresses.
55. A. A. Borodachev (Mukhomorov): A method of determining the state of stress.
56. A. A. Borodachev (Mukhomorov): A method of determining the state of stress.
57. A. A. Borodachev (Mukhomorov): Elements and methods of the theory of visco-plasticity dispersed media just before the onset of fracture.
58. A. A. Borodachev (Mukhomorov): On the analysis of a short closed cylinder.
59. A. A. Borodachev (Mukhomorov): On the distribution of stresses in a thick elastic plate.
60. A. A. Borodachev (Mukhomorov): A statistical method in the stability theory of shells.
61. A. A. Borodachev (Mukhomorov): A method of determining the state of stress.
62. A. A. Borodachev (Mukhomorov): Foundations of the general engineering theory of shells.
63. A. A. Borodachev (Mukhomorov): The laws of deformation of ice.
64. A. A. Borodachev (Mukhomorov): The laws of motion of ice crusts and the theory of visco-plastic flow based on research in the laboratory.
65. A. A. Borodachev (Mukhomorov): A method of obtaining polynomial approximations of functions.
66. A. A. Borodachev (Mukhomorov): A contribution to the theory of the stability of shells.
67. A. A. Borodachev (Mukhomorov): The propagation of elastic-plastic waves and shear waves in the asymmetric deformations of shells.

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S/179/60/000/005/008/010
E081/E135

AUTHOR: Borodachev, N.M. (Kuybyshev)

TITLE: Solution of the Plane Dynamic Problem of Elasticity
Theory with the Aid of Fourier Series

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh
nauk, Mekhanika i mashinostroyeniye, 1960, No 5,
pp 161-163

TEXT: The known solution of Riber and Filon is extended in the paper to the steady vibrations of a rectangular strip. The problem leads to the solution, subject to the boundary conditions:

$$(\Delta + a^2)(\Delta + b^2)\Phi(x, y) = 0 \quad (1)$$

$$a^2 = \frac{\rho\omega^2}{\lambda + 2\mu}, \quad b^2 = \frac{\rho\omega^2}{\mu}, \quad \Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}$$

where λ , μ are Lamé's constants and ρ is the density. The components of the displacement vector are given by Eqs (2) and (3). The solution for the steady vibrations of a rectangular strip is written in the form of a complex Fourier series, and as a

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S/179/60/000/005/008/010
E081/E135

Solution of the Plane Dynamic Problem of Elasticity Theory with the Aid of Fourier Series

result Eq (4) is obtained, leading to Eq (5) for the displacements. The stress components are given by Eqs (6) and (7); the coefficients B_k in Eqs (5) and (7) are obtained from the boundary conditions at $y = \pm c$. This solution satisfies the boundary conditions on the longitudinal edges of the strip, but the conditions on the transverse edges ($x = \pm$) cannot be satisfied. The solution may be applied to the case of plane deformation by substituting $\lambda_0 = 2\lambda\mu/(\lambda + 2\mu)$ for λ . ✓
c

As an example of the application of the solution, the problem represented in Fig 2 is considered. The boundary conditions are given by Eq (8) and the coefficients B_1, B_3 are found as the last equations on page 163, with $B_2 = B_4 = 0$.

There are 2 figures and 4 references: 1 English and 3 Soviet.

SUBMITTED: December 29, 1959

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S/179/60/000/005/008/010
E081/E135

Solution of the Plane Dynamic Problem of Elasticity Theory with
the Aid of Fourier Series

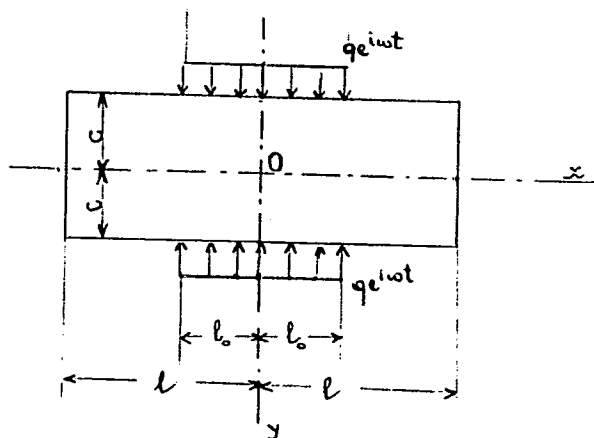


Fig.2.

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BORODACHEV, N.M. (Kuybyshev)

Solution of the dynamic contact problem for a semispace in case of
axial symmetry. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr.
no.4:141-144 J1-Ag '60. (MIRA 13:8)
(Elasticity)

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33049 R
S/179/60/000/005/008/010
E081/E135

AUTHOR: Borodachev, N.M. (Kuybyshev)
TITLE: Solution of the Plane Dynamic Problem of Elasticity Theory with the Aid of Fourier Series
PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, No. 5, pp. 161-163
TEXT: The known solution of Rivière and Filon is extended in the paper to the steady vibrations of a rectangular strip. The problem leads to the solution subject to the boundary conditions of the equation

$$(\Delta + a^2)(\Delta + b^2)\Phi(x, y) = 0 \quad (1)$$

$$a^2 = \frac{\rho\omega^2}{\lambda + 2\mu}, \quad b^2 = \frac{\rho\omega^2}{\mu}, \quad \Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2}$$

where λ, μ are Lamé's constants, ω is the angular frequency, and ρ is the density. Assuming steady vibration, the stress function, the displacements, and the stresses are obtained as
Card 1/2

33049 R

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E001/E135

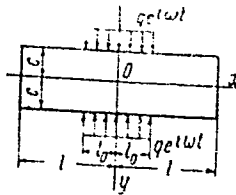
Solution of the Plane Dynamic Problem of Elasticity Theory with the Aid of Fourier Series

complex Fourier series. The particular problem illustrated in Fig.2 is considered and the coefficients in the expressions for displacements and stresses are determined explicitly.

There are 2 figures and 4 references: 3 Soviet and 1 English.

SUBMITTED: December 29, 1959

Fig. 2



Card 2/2

BORODACHEV, N.M.

General solution of a dynamic problem for a visco-elastic half-space. Izv.AN SSSR, Ser.geofiz. no.9:1336-1340 S '60.
(MIRA 13:9)

(Seismic waves)

S/081/62/000/012/026/063
B166/B101

AUTHOR: Borodayev, D. A.
TITLE: The use of ultrasound for monitoring process parameters
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 343, abstract
12I119 (Sb. "Prom. primeneniye ul'trazvuka. Kuybyshevsk.
aviats. in-t". Kuybyshev, 1961, 119-140)

TEXT: A description is given of the working principle, design and fields of application of various types of ultrasonic instruments intended for the contactless monitoring of the main process parameters of liquids and gases: level, flow rate, viscosity, composition, temperature and dust content. Instrument designs developed by the Ural'skiy politekhnich. in-t im. S. M. Kirova (Ural Polytechnical Institute imeni S. M. Kirov), NII Teplopribor, TsNIL Gosgortekhnadzor, as well as by a number of foreign firms: "Atlas Werke", "Proton" (Sweden), "Bendix Aviation Corporation", etc. are examined. Comparative technical descriptions of the various instruments are given. [Abstracter's note: Complete translation.]
Card 1/1

12.8000

39216

S/225/62/000/003/001/001

1034/1234

AUTHOR: Borodachev, N. M.

TITLE: Concerning the determination of stresses under vibrating foundations

PERIODICAL: Osnovaniya, fundamenty i mekhanika gruntov, no. 3, 1962, 4-7

TEXT: The law of stress distribution under foundations must be found. This can be done by assuming the foundation to be an absolutely rigid 'stamp', and the ground — an elastic body, and by applying to the problem the model of an elastic semi-space. Thus, determining the stress distribution law under a vibrating foundation requires solving the dynamic contact problem of the theory of elasticity. The author works out in detail two typical problems. The first problem is that of a flat-bottomed cylindrical 'stamp' pressing into an isotropic semi-space, with a load composed of a static force Q and varying dynamic force $P \sin \omega t$. Since the effects of the static component of the load have been sufficiently investigated in previous studies, the article is confined to examining the effect of the dynamic force. On the basis of former work by the author and others, a formula is arrived at for the normal stresses under the 'stamp' and is illustrated by a numerical example. ✓

The second problem is that of a rigid strip-like foundation with flat bottom, resting on an elastic semi-space and loaded as in the first problem. By a sequence of mathematical manipulations relating to the dynamic force, expressed in this case as $P e^{i\omega t}$, a set of formulas is arrived at for the distribution law of normal stresses under the rigid foundation. There are 3 figures.

Card 1/1

S/124/63/000/001/056/080
D234/D308

AUTHOR: Borodachev, N.M.

TITLE: Vibrations of circular and ring-shaped plates subject to a periodic load

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 1, 1963, 26, abstract 1V178 (Tr. Konferentsii po teorii plastin i obolochek, 1960, Kazan', 1961, 37-40)

TEXT: The author constructs general solutions of the problem of small vibrations of circular and ring-shaped plates subject to a periodic load having the form of Fourier and Fourier-Bessel series, which are applied to particular boundary problems: a circular plate, clamped or hinged, subject to a concentrated force $P \exp i\omega t$ ($P = \text{const}$, ω is the frequency, t is the time, $i = \sqrt{-1}$); a ring-shaped plate, clamped along the outer and inner edge.
[Abstracter's note: Complete translation]

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BORODACHEV, N. M. [Borodachov, M. M.] (Saratov)

Vibrations of an annular plate with reinforced edge under the
action of periodic loading. Prikl. mekh. 8 no.6:592-596 '62.
(MIRA 15:10)

1. Saratovskiy politekhnicheskiy institut.

(Elastic plates and shells—Vibration)

Borodachev, N.M.

PHASE I BOOK EXPLOITATION

SOV/6206 25

Konferentsiya po teorii plastin i obolochek. Kazan', 1960.

Trudy Konferentsii po teorii plastin i obolochek; 24-29 oktyabrya 1960. (Transactions of the Conference on the Theory of Plates and Shells Held in Kazan', 24 to 29 October 1960). Kazan', [Izd-vo Kazanskogo gosudarstvennogo universiteta] 1961. 426 p. 1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial. Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina.

Editorial Board: Kh. M. Mushtari, Editor; F. S. Isanbayeva, Secretary; N. A. Alomyae, V. V. Bolotin, A. S. Vol'mir, N. S. Ganiyev, A. L. Gol'denveyzer, N. A. Kil'chevskiy, M. S. Kornishin, A. I. Lur'ye, G. N. Savin, A. V. Sachenkov, I. V. Svirskiy, R. G. Surkin, and A. P. Filippov. Ed.: V. I. Aleksagin; Tech. Ed.: Yu. P. Semenov.

PURPOSE: The collection of articles is intended for scientists and engineers who are interested in the analysis of strength and stability of shells.

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Transactions of the Conference (Cont.)

SOV/6206

75

COVERAGE: The book is a collection of articles delivered at the Conference on Plates and Shells held in Kazan' from 24 to 29 October 1960. The articles deal with the mathematical theory of plates and shells and its application to the solution, in both linear and nonlinear formulations, of problems of bending, static and dynamic stability, and vibration of regular and sandwich plates and shells of various shapes under various loadings in the elastic and plastic regions. Analysis is made of the behavior of plates and shells in fluids, and the effect of creep of the material is considered. A number of papers discuss problems associated with the development of effective mathematical methods for solving problems in the theory of shells. Some of the reports propose algorithms for the solution of problems with the aid of electronic computers. A total of one hundred reports and notes were presented and discussed during the conference. The reports are arranged alphabetically (Russian) by the author's name.

Card 2/14

Transactions of the Conference (Cont.)

SOV/6206

Borovskiy, P. V. Application of the Method of Net to the Analysis of Parallelogram-Shaped Plates	33
<u>Borodachev, N. M.</u> Vibration of Circular and Annular Plates Under the Action of Cyclic Loading	37
Bulgakov, V. N. Application of Numerical Methods to the Analysis of a Toroidal Shell	41
Burmistrov, Ye. F. Bending of a Cylindrical Orthotropic Shell of Variable Thickness	46
Vallner, Kh. A. Determination of the Load-Carrying Capacity of Annular Rigid-Plastic Plates Under Small Deflections	53
Valov, G. M. Bending of a Thin Rectangular Cantilever Plate With Arbitrarily Distributed Transverse Loading	60

Card 4/14

BORODACHEV, N.M. (Saratov)

Solution of the contact problem in thermoelasticity in case of an axial symmetry. Izv. AN SSSR. Otd. tekhn. nauk. Mekh. i mashinostr. no. 5:86-90 S-0 '62. (MIRA 15:10)

(Elasticity)

(Thermal stresses)

BORODACHEV, N.M. (Saratov)

Plane contact problem for an elastic solid of finite width. Izv.AN
SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.6:170-172 N-D '62.

(MIRA 15:12)

(Elastic solids)

S/879/62/000/000/045/088
D234/D308

AUTHOR: Borodachev, N. M. (Saratov)

TITLE: Dynamical contact problem for a circular plate on an elastic half-space

SOURCE: Teoriya plastin i obolochek; trudy II Vsesoyuznoy konferentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo AN USSR, 1962, 280-283

TEXT: The author considers transversal vibrations of the plate as above, subject to a given load $q_2(r)e^{i\omega t}$. The solution of the differential equation of the problem is obtained in terms of Bessel and Hankel functions and their integrals. The boundary conditions reduce to two integral equations, which are solved using a transformation and successive approximations. The result for the reactive normal pressure due to the half-space is

Card 1/2

BORODACHEV, N.M. (Saratov)

~~Plane problem in thermoelasticity on the pressing-in of a die.~~

Plane problem in thermoelasticity on the pressing-in of a die.

Inzh.zhur. 3 no.4:736-740 '63.

(MIRA 16:12)

BORODACHEV, N.M., kand.tekhn.nauk

Solution of the dynamic problem in the theory of elasticity for
a circle. Izv.vys.ucheb.zav.; mashinostr. no.6:51-57 '63.
(MIRA 16:10)

1. Kuybyshevskiy inzhenerno-stroitel'nyy institut.

BORODACHEV, N.M. (Saratov)

"The application of isoperimetric inequalities to the estimation of displacements for a punch of arbitrary plan form"

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

BORODACHEV, N.M. (Saratov)

Dynamic contact problem of a punch with a flat circular base
on an elastic semispace. Izv. AN SSSR. Mekh. i mashinostr.
no. 2:82-90 Mr-Apr '64. (MIRA 17:5)

L 21117-65 ENT(d)/ENT(m)/ENP(w)/EWA(d) AEDC(a)/ASD(f)-3 EM
ACCESSION NR: AP5002596 S/0179/64/000/005/0083/0087

AUTHOR: Borodachev, N. M. (Saratov)

TITLE: Thermoelastic Hertz problem in the case of axial symmetry

SOURCE: AN SSSR. ²⁴ Izvestiya. Mekhanika i mashinostroyeniye, no. 5, 1964, 83-87

TOPIC TAGS: thermoelasticity, elastic material, elastic stress

ABSTRACT: Consider two adjacent elastic bodies bounded by surfaces of rotation. The author investigates the Hertz (contact) problem in the axisymmetric case when the surfaces temperatures of the bodies are different. It is assumed that the axes of symmetry of the bodies coincide and that the compressing forces of this common axis are equal in effect. It is also assumed that the bodies contain no heat source. The problem is formulated as a pair of Laplace equations. Since the dimensions of the contact area are usually small compared to the general dimensions of the bodies, the author replaces the bodies respectively by upper and lower half-spaces with the same elastic characteristics as the bodies. He derives a pair of integral equations which are solved by the method of B. Noble (Certain dual integral equations. J. Math. Phys., 1958, vol. 37, N 2). He determines the normal

Cord 1/2

L 21147-65

ACCESSION NR: AP5002596

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stresses acting on the contact area and completely solves the problem in general form, avoiding rotation of Hankel transforms. He applies the theory to the concrete problem of an elastic sphere rotating in an elastic half-space subject to a certain force, where part of the boundary of the half-space is maintained at a given temperature, and friction between the sphere and the half-space is neglected. Orig. art. has: 34 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 12Jan63

ENCL: 00

SUB CODE: AS, TD

NO REF SOV: 002

OTHER: 003

Card 2/2

BOBOSHAHEV, N.M. (Saratov)

... ..
... ..
... .. (MIRA 184)

BORODACHEV, N.M., (Saratov)

Determining the settling of rigid plates and massive bodies.

Osn. fund. i mekh. grun. 6 no.43-5 '64.

(MIRA 17:12)

BORODACHEV, N.M. (Saratov)

Determining dynamic stresses originating in the elastic
semispace under the action of a stamp with a flat circular
base. Izv. AN SSSR.Mekh. no.4:158-160 J1-Ag '65.
(MIRA 18:12)

BORODACHEV, N.M.

Forced vibrations of rigid plates and blocks resting
on an elastic half-space. Osn., fund. i mekh.grun. 8
no.1:8-10 '66.

(MIRA 19:1)

BORODACHEV, P.D., kand.tekhn.nauk

Changing norms for designing industrial buildings, offices, and
personnel facilities. Prom. zdan. no.1:30-35 '59.

(MIRA 13:8)

(Factories--Design and construction)
(Factory sanitation)

BORODACHEV, V. Ya., ENGINEER

Cand Tech Sci

Dissertation: "Propagation of Turbulent Free Gas Jets in a Flow of the Same Direction at High Temperatures of Discharge."

27 May 49

Scientific Council of the Central Inst of Aircraft Engine Building
imeni Sci- Res P. I. Baranov

**SO Vecheryaya Moskva
Sum 71**

BORODACHEV, V. Ya. KULIK, L. M, and RUD'KE, A. K.

"Approximate Solution of Heat Conduction Equation For
Uniformly Laminated Media."

Report submitted for the conference on Heat and Mass Transfer, Minsk,
BSSR, June 1961.

L 16477-65 ENT(d)/ENT(m)/EPF(c)/EWP(f)/T-2 Pr-4 AEDC(b)/ASD(p)-3/AFETR/AFTC(n)/
 ACCESSION NR AM4045080 BOOK EXPLOITATION AFTC(p) WE 8/

Raushenbakh, Boris Viktorovich; Bely'y, Sergey Andreyevich; Bespalov, Ivan
Vanifat'yevich; Borodachev, Vadim Yakovlevich; Voly'nskiy, Mark Semanovich;
Prudnikov, Aleksandr Grigor'yevich

Physical principles of operation in air-jet engine combustion chambers
 (Fizicheskiye osnovy' rabochego protsessa v kamerakh sgoraniya vozdušno-
 reaktivny'kh dvigateley), Moscow, Izd-vo "Mashinostroyeniye", 1964,
 525 p. illus., biblio. Errata slip inserted. 4,000 copies printed.

TOPIC TAGS: jet engine, combustion chamber, fuel combustion

PURPOSE AND COVERAGE: This book presents the physical principles of fuel
 combustion in air flows and methods of calculating combustion chambers of
air-jet engines; The thermodynamic and aerodynamic characteristics of com-
 bustion chambers, vaporization and mixing of fuels, ignition and combustion
 of gas mixtures in laminar and turbulent flows, combustion behind a body
 with poor flow, and the processes of heat exchange and heat protection of
 chambers are considered. The book is intended for researchers and engineers
 specialized in aviation and other fields. It will also be useful to students
 in higher technical educational institutions.

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ACCESSION NR AM4045080

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Ch. VII. Flame stabilization in flow of a fuel mixture -- 371

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Ch. IX. Cooling the walls of a combustion chamber and nozzle -- 440

SUB CODE: PR

SUBMITTED: 20Mar64

NR REF SOV: 112

OTHER: 079

Cord 2/2

ACC NR: AR6035226

SOURCE CODE: UR/0372/66/000/008/G011/G011

AUTHOR: Borodacheva, M. M.

TITLE: Averaging acceleration curves of stable automatic control objects by the least-squares method

SOURCE: Ref. zh. Kibernetika, Abs. 8G64

REF SOURCE: Kontrol'no-izmerit. tekhnika. Resp. meshved. nauchno-tekhn. sb., vyp. 1, 1965, 32-38

TOPIC TAGS: cybernetics, automatic control, acceleration curve, stable automatic control object, control object, least squares method

ABSTRACT: A method is proposed for determining time constant of transfer functions of stable control objects, approximated by second-order system with delay. The method is based on averaging experimentally plotted acceleration curves using the least-squares method. Breaking down these curves by the piecewise linear method of approximation into a series of segments and using the above-mentioned method to determine the most probable values (mathematical expectation) of the coefficients of linear equations which correspond to these

Card 1/2

UDC: 62-5.001.5

ACC NR: AR6035226

segments, the object's time constants are then determined. It is pointed out that the proposed method eliminates the possibility of the occurrence of subjective errors which arise when determining object time constants by plotting tangents graphically and using acceleration curves plotted from experimental data. Orig. art. has: 1 figure and 3 references. [Translation of abstract] [SP]

SUB CODE: 12/

Card 2/2

GONCHAROV, V.V. [deceased]; SEMIT-FOGELVICH, S.P.; BORODACHEVA, M. Ye.

Combined method for the determination of the phase composition
of high-alumina refractories. Zav. lab. 30 no.6:729-730 '64
(MIRA 17:8)

GODLEWSKI, Jozef; BORODAJ, Maria; KORNOBIS, Krystyna; WIERZBICKA, Stefania;
ZEMAN, Fryderyka

Neurovegetative reactions in meningeal tuberculosis in child. *Pediat.
polska* 30 no.1:5-13 Jan 55.

1. Z Miejskiego Specjalistycznego Szpitala Dziecięcego im. J. Kor-
czaka we Wrocławiu Ordynator: dr med. J. Godlewski. Otrzymano: 1.II.
1954 Adress: Wrocław, Berenta 37.

(TUBERCULOSIS, MENINGEAL, in infant and child,
neurovegetative reactions)

(AUTONOMIC NERVOUS SYSTEM, in various diseases,
tuberc. meningeal in inf. & child.)

BORODANOV, N.A.

Introducing progressive technology for handling packed cargoes
in Kuybyshev harbor. Rech. transp. 16 no.6:11-12 Je '57.

(MLRA 10:8)

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(Kuybyshev--Harbors) (Cargo handling)

BORODANOV, N.M.; GRIGOR'YEV, S.T.; PANYUKOVA, Z.S.; SOKOLOV, V.M.; PYLAYEVA,
A.P., red.; GOR'KOVA, Z.D., tekhn. red.; GUREVICH, M.M., tekhn. red.

[Collective-farm accountant's reference book] Spravochnik bukhgaltera
kolkhoza. Moskva, Gos. izd-vo sel'khoz. lit-ry zhurnalov i plakatov,
1961. 583 p. (MIRA 146)

(Collective farms--Accounting)

BORODASHKIN, A.A., inzh.; TOMASHEVICH, V.N., inzh.; LEYTIM, G.S., red.;
GEORGIYEVA, G.I., tekhn.red.

[Flexible metal shafts, hoses, and sheaths; catalog-handbook]
Metallicheskie gibkie valy, rukava i pletenki; katalog spravochnik.
Moskva, 1958. 64 p. (MIRA 13:3)

1. Russia (1923- U.S.S.R.) Tsentral'noye byuro tekhnicheskoy
informatsii Vniistroydormasha.
(Shafting) (Hose) (Cables)

BORODASHKINA, V. V.

USSR.

692. Heat-insulating fibre made from basalt.—YA. A. SHKOL'NIKOY, E. P. KOCHAROV,
and V. V. BORODASHKINA (*Glass & Ceramics*, Moscow, 11, No. 9, 9, 1954). The
thermal insulation value of basalt wool is several times greater than that of mineral
wool, and 2-3 times greater than that of glass wool. Experiments have shown that
high-quality heat-insulating material can be obtained from basalt without any additions.
Basalt wool made by "vertical blowing" has high chemical stability, fairly low bulk-
density, uniform fibre diameter, high tensile-strength, and elasticity, and long-fibre
structure. (1 fig., 2 tables.)

1ST AND 2ND CODES		PROCESS AND PROPERTY CODES		3RD AND 4TH CODES	
0A				7	
Determination of elementary sulfur in a gas mixture. A. G. Arndt and Z. B. Boroditskaya. <i>Zhurnal Khim. Fiz.</i> 11, 225-7 (1945).—Pass the gas sample into a 400-500-mm. quartz tube (diam. 4-6 mm.) filled with loosely packed glass wool (2-3 g.) with a velocity of 1 l./min. (resistance of the glass wool should be not less than 15-20 mm. of Hg) so that 0.15-0.2 g. of S is accumulated, connect the tube with a Bunsen jar, wash the sample under a reduced pressure with 750-1000 ml. of hot dist. water to remove SO₂, SO₃, As₂O₃, and other impurities. Place the glass wool (contg. S) in a 250-ml. Erlenmeyer flask, add 50 ml. of N NaOH, and boil. Est. S from the tube by dipping one end into boiling NaOH, and drawing in the hot soln. through a rubber tubing at the other end of the tube so as to dissolve all S present, cool, add 10 ml. of H₂O₂ neutral to methyl orange, let stand for 15-20 min., and titrate excess base with N HCl. Det. S in g./cm. m. by the equation $(a K_1 - b K_2) 0.016 / V_0$ (a the quantity of base taken in ml., K₁ correction to the base soln., b quantity of HCl used for back titration in ml., K₂ correction to the acid soln., V₀ vol. of the gas passed under standard conditions). In the presence in the gas of considerable quantities of substances reacting with base, the soln. is boiled after oxidation with H₂O₂ and S detd. by the usual method. Three references. W. R. Henn					
ASB-54 METALLURGICAL LITERATURE CLASSIFICATION					
SOURCE SYMBOL		SOURCE NAME OR CODE		SOURCE NUMBER	
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00		10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00		10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00	

CA

6

Properties of nitrosopropionic acid. A. G. Amelin and Z. B. Borodastova. *Zhur. Priklad. Khim.* (J. Applied Chem.) 27, 928-37 (1954).—The acid $\text{HO}_2\text{SOSO}_2\text{NO}_2$, obtained by pouring SO_3 and HNO_3 into a cooled beaker, with const. stirring, the temp. not being allowed to rise above 40° , and purified by repeated recrystn. m. 106.5° , $d_4^{20} = 2.1789$. The system $\text{H}_2\text{SO}_4\text{--HO}_2\text{SOSO}_2\text{NO}_2$ has a eutectic point at 40.66 wt. % $(\text{SO}_3)\text{HNO}_3$, m. -16.5° , freezing -24° . Densities and viscosities were detd. for 10 solns. of the compsn. (wt. % SO_3 , N_2O_5 , H_2O): (I) 80.66, 5.35, 16.99; (II) 78.93, 6.18, 15.91; (III) 70.77, 12.13, 11.10; (IV) 84.34, 2.38, 13.13; (V) 82.71, 5.02, 12.27; (VI) 79.38, 11.85, 8.77; (VII) 90.61, 2.71, 6.68; (VIII) 88.68, 5.11, 6.21; (IX) 82.99, 11.44, 5.57; (X) 80.05, 11.33, 2.63. For solns. I, II, V-X, the d . at 20° is 1.8549, 1.8723, 1.9190, 1.9390, 1.9947, 2.0343, 2.0371, 2.0520, 2.0800, and at 50° , 1.8283, 1.8446, 1.865, 1.9075, 1.9600, 1.9769, 1.9950, 2.0174, 2.0361. The viscosities at 20° are 35.5, 36.4, 52.9, 68.8, 22.2, 138.7, 221.5, 742.5, 880.0, and at 50° , 13.4, 13.8, 17.7, 21.3, 5.03, 26.2, 39.5, 102.5, 185.3. For solns. VII-X, the total vapor pressures are, at 20° , 61.5, 35.5, 4, 56, at 50° , 331, 49.5, 296, and at 70° , 760, —, 147, 887 mm. Hg. Vapor pressures of oleum, at 20° , 58.9, 31.6, —, 25.2, at 50° , 302.3, 167.3, 34.9, 144.5, and at 70° , —, —, 99, 404.2 mm. Hg. N. Thon

CA

Theory of the process of separation of vapor by freezing out. A. G. Amelin and Z. B. Borodastova (Inst. Fertilizers, Insecticides & Fungicides, Moscow). *Zhur. Fiz. Khim.* 26, 529-33 (1950); cf. *Zhur. Tekh. Fiz.* 19, 1136 d (1949); *C.A.* 43, 7778c.—When a vapor passes through a cold trap, it can either be condensed on the walls or form an aerosol that is not held back by the trap. The theory shows that the amt. of aerosol is greater the lower the temp. of the trap. E.g., air + EtOH (15 mm. Hg) forms no aerosol above -33° , but 50% of the EtOH escapes as aerosol at -80° . The few expts. made agreed with this conclusion. The higher the vapor content of the ingoing gas, the higher the temp. at which aerosol formation starts. Vapor should be passed through a series of traps, each following trap being colder than the previous one.
J. J. Bickerman

✓ The mechanism of fog formation in concentrating sulfuric acid. A. G. Angelin and Z. B. Borodastova. *Zhur. Prirod. Khim.* 29, 664-71 (1956). It is shown theoretically that fog formation in concg. H_2SO_4 is due to the supercooling of the tail gases. This can be reduced and completely eliminated by channeling the hot gases so that not all of them pass from one chamber into another. If necessary hot gases from addnl. sources can be introduced directly into the forward chambers. Concg. with steam lowers the satn. point of SO_2 , reducing the fog. I. Bencowitz

PM

LFH

Lab. Contact Sulfuric acid NIJIF

BORODASTOVA, Z.B.

Chem ✓ The mechanism of fog formation in concentrating sulfuric
acid. A. G. Amelin and Z. B. Borodastova. J. Appl.
Chem. U.S.S.R. 29, 721-7(1950)(English translation).
See C.A. 50, 16051a. B. M. R.

3

USSR/Biology - Ichthyology

Card 1/1 : Pub. 86 - 23/40

Authors : Borodatov, V. A.

Title : Marking fish as a means of studying their migration

Periodical : Priroda 43/4, page 105, Apr 1954

Abstract : An account is given of the marking of fish at an institute in Murmansk. Through this method the migrations between the feeding and spawning grounds were established. An instance is cited of a codfish being caught 400 mile from the place of marking.

Institution :

Submitted :

BORODATOV, V. A. and Yu. L. KARPECHENKO

"The Conditions and Prospects of Herring Fishing in the North Atlantic."

report presented at the All-Union Conference on Biological Foundations of Ocean Fishing, 11-16 April 1958, by Ichthyological Committee of AS USSR, VNIRO, and Inst. Oceanography, AS USSR.
(Vest. AN SSSR, 1958, No. 7, pp. 131-133)

BORODATOV, V.A., kand.biolog.nauk; DEMIDOV, V.F.; DUKHANIN, A.N.; ZHUKOVA, A.I.; KADIL'NIKOV, Yu.V.; KARPECHENKO, Yu.L.; KORZHOVA, Yu.A.; MAKHOVER, Z.I.; PETROV, G.P.; PROSVIROV, Ye.S.; RUL'EV, N.N.; SOKOLOV, O.A.; SPICHAK, M.K.; KHROMOV, N.S.; SHUIN, V.I., red.; FORMALINA, Ye.A., tekhn.red.

[Study of tuna fish and sardines in the eastern part of the Atlantic Ocean; report on the cruise of the scientific fishery survey expedition of 1957] Issledovaniia tuntsa i sardiny v vostochnoi chasti Atlanticheskogo okeana; reisovyi otchet nauchno-poiskovoi ekspeditsii, 1957 g. Moskva, 1959. 158 p. (MIRA 13:6)

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(Atlantic Ocean--Tuna fish) (Atlantic Ocean--Sardines)
(Fish, Canned)

BORODATOV, V.A.; KARPECHENKO, Yu.I.

Soviet scientific fish-locating expedition in waters of Western Africa
and outlook for fisheries in this area. Trudy sov. Ikht. kom. no.10:
131-138. '60. (MIRA 13:10)

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khozyaystva i okeanografii-(VNIRO).
(Africa, Western--Sardine fisheries) (Africa, Western--Tuna fish)

MARTI, Yu.Yu., otv. red.; ALEKSEYEV, A.P., zam. otv. red.; NOSKOV, A.S., zam. otv. red.; BORODATOV, V.A., red.; VINOGRADOV, L.G., red.; ZAYTSEV, G.N., red.; IZHEVSKIY, G.K., red.; KAZANOVA, I.I., red.; KONSTANTINOV, K.G., red.; MUNTIAN, V.M., red.; NAUMOV, V.M., red.; SEDYKH, K.A., red.; FEDOSOV, M.V., red.; CHUMAKOVA, L.S., red.; AYNZAFI, Yu.S., red.; MUKHINA, Ye.M., red.; FORMALINA, Ye.A., tekhn. red.

[Soviet fishery research in the northwestern part of the Atlantic Ocean] Sovetskie rybnokhoziaistvennye issledovaniia v severo-zapadnoi chasti Atlanticheskogo okeana. Moskva, Izd-vo zhurnala "Rybnoe khoziaistvo," 1962. 375 p. (MIRA 15:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii. 2. Vsesoyuznyy nauchnyy institut morskogo rybnogo khozyaystva i okeanografii (for Marti, Fedosov). (Atlantic Ocean—Fisheries—Research)

BORODATOV, V.A.

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Report submitted to the Conf. on the Application of Science and Technology
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Geneva, Switzerland 4-20 February 1963

BORODATOV, V.V.

BALAKHOVSKIY, S.D., BORODATOV, V.V., BUDNITSKAYA, YE.V.

Mbr., Institute of Biochemistry im. Bakh, Acad. Sci. -1946-.

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BICHEVOI, Ya.; BORODATYI, I.

Let's train the true masters of the earth. Prof.-tekh. obr. 21
no.9:1-3 S '64. (MIRA 17:11)

1. Predsedatel' kolkhoza "Rossiya" Novoaleksandrovskogo proizvodstvennogo upravleniya Stavropol'skogo kraya (for Bichevoy). 2. Direktor Grigoripolisskogo sel'skogo professional'no-tekhnicheskogo uchi-lishcha (for Borodatyy).

ANTSUPOV, P.V.; BORODATYY, I.I.; ORLOV, A.A.; PROSNIYAKOV, A.V.

Prospects for finding commercial gas in the Bukovina part of
the outer zone of the Carpathian piedmont fault. Neftegaz.
geol. i geofiz. no.3:37-38 '65. (MIRA 18:7)

1. Trest "L'vovneftegazrazvedka".

ARONOV, V.I.; BORODATYY, I.I.; FIL'SHTINSKIY, L.Ye.

Calculating the corrections for the relief of an area in a
mountainous region using electronic computers. Geofiz. razv.
no. 15:104-111 '64. (MIRA 17:7)

BORODATYY, I.; BABENKO, I.

Studying the technical servicing of the tractor-driven
multipurpose machinery. Prof.-tekh. obr. 22 no.10:34 0 '65.
(MIRA 18:10)

1. Direktor grigoripolisskogo sel'skogo professional'no-
tekhnicheskogo uchilishcha No.9, Stavropol'skiy kray (for
Borodatyy).

BORODAVCHENKO, G. V.

BORODAVCHENKO, G. V.

6642 BORODAVCHENKO, G. V. I SANKHAROV, S. I., SMOUSHTKOV
NABEZANIE KRUPNOY MOUL'NOY. REZ'BY VRASHCHENYUSHECHENIYA
REZTSANI. IS OPIYA RABOTY RAVOTOROV ZAVODA "LENINIA TRUA". L.,
1954 Obl., 4 s s chertl, 1 L. chert 21 SM. (Vsesoyuz. o-vo po
rasprostraneniyu polit. i nauch. znaniy. Leningr. DOM NAUCH- TECHN.
PROPAGANDY LISTOK NAVATORA NO. 34 (273) 3,800 BRZ 20 K avt.
ykazany v kontse teksta (54-1536324) 62.99 01 st

SO: KNIZHANYA ISTOCHIS ' NO. 6, 1955

BORO DAVE HENKO, Cr. V

PLACE 2 BOOK INFORMATION NOT/ALL

[illegible]

REMARK: This book is intended for technical personnel.

SYSTEMS! The book deals with the automation of mechanical molding processes in small-lot production in handpoured moldings, the use of hydraulic copying slabs, small-lot extrusion, and production experiments. In the introduction of each slide plate is explained, and practical experience. The improvement of such slide plates into leading Soviet plants is described from their usage, and methods of testing, the technical and economic results resulting from their use, and methods of developing new types of equipment. Key features of hydraulic slide plates are described. Chapter 25 deals upon problems of program control, especially for the universal control systems, and a number of the original systems are described. For the automatic problems involved in the given molding method are investigated. No special difficulties are mentioned. There are 31 references; 16 foreign and 15 Russian.

RESEARCH, L. K., and A. A. LEVITS. Experiments Conducted in the Use of Hydraulic Molding Bases in Mass Production.

115

SECTION II.

MEDICAL PROGRAM CONTROL

Dr. J. M. Die of Numerical Program Control for the Automation of Machine Tools in Small- to Production 339

YERBERT, A.A., O.F. BOLOJOY, G.O. KARATENDO, and B.L. YERLLOY, National Scientific Device for Controlled Machine Tools Drive

167 **Manufacturing of Second-Order Curves** — A. M. and E. A. Prohorov. **Boring Machines Model 2627M With**

THE UNIVERSITY OF CHICAGO
 LIBRARY
 540 EAST 58TH STREET
 CHICAGO, ILL. 60637

VLADY, M. G., Yu. B. GORDELSHIN, and M. A. ITKIN. Drinking
Machine With Pressure Control

Paul A.A. the Use of Potentiometric Functional Transducers as Betting

Devices in Program Control of Systems

Measuring the Magnitude of Tool Displacements

Pollack, P. A. Intermittent Single-Coordinate Program Control System
for Ladders 28,

Baranovskiy, A. P. Experience Gained in the Use of the Sigma Program
Candidate of Technical Sciences] 251

NOTICE

AUTOMATION IN LOT PRODUCTION BASED ON THE BEST AVAILABLE METHOD

Use of Psychological Processes

REPRODUCTION OF GROUP MEMBERS IN THE
LATE PRODUCTION

Estimate, I.M. The New Model 1140 Single-Grindle Automatic
Nutting Lathe
31

Vladimirov, I.M., and G.V. Rodionovskiy. Mechanisation of . . .

35 "Assembly and Attention of Participants at the Annual Meeting
(Plant Limit Topics)

Bibliography

AVAILABLE: LIBRARY OF CONGRESS

TK/ps/mas
10-25-60

BORODAVCHENKO, P. I.

PA 197T85

USSR/Metals - Foundry, Equipment

Sep 51

"Hoisting Device for Conveyance of Liquid Metal,"
P. I. Borodavchenko, A. N. Dronov, Engineers, Lyu-
bertsy Agr Mach Bldg Plant

"Litey Proiz" No 9, pp 13, 14

Describes construction of hoisting device in-
stalled at plant for conveying suspended ladle
from lower to higher level of overhead monorail
track. Device represents endless chain with cams
which forces ladle carriage up track slope.

197T85

BORODAVCHENKO, P. I.

USSR/Metals - Cast Iron, Heat Treatment,
Equipment

Oct 51

"Mechanization of the Unloading of Containers for
Annealing Malleable Iron," P. I. Borodavchenko,
A. I. Dronov, Engineers, Lyubertsy Agr Mach Bldg
Plant

"Litey Proizvod" No 10, p 12

Briefly describes mechanized installation for un-
loading containers with malleable iron castings
after their annealing. Simultaneously, previously
emptied pots are reloaded and sent into furnace.
Installation is equipped with ventilating devices.

198167

BORODAVCHENKO, P.I., Dronov, A.N.

Slanted conveyor for running off completed machines from the painting shop to
storage
Sel'khoz mashina, no.2, 1952

BORODAVCHENKO, P.I., Dronov, A.N.

Casting shot for shot-peening apparatus
Sel'khoz mashina no.4, 1952

1. BORODAVCHENKO, P.I. DRONOV, A.N.
2. USSR (600)
3. Lumber - Transportation
4. Moving lumber on a belt conveyor at a great angle.
Sel'khoz mashina. No. 10 - 1952

9. Monthly List of Russian Acquisitions, Library of Congress, February, 1953. Unclassified.

BORODAVCHENKO, P.I., Dronov, A.N.

Set-up for casting shot
Litproizv. no.3, 1952

IVANOV, I.S.; LIKHOYEDENKO, K.I.; REZNICHENKO, M.Ya.; CHERNOV, G.G.;
ZURAB'YAN, S.I., inzh., retsenzent; KORNEYEV, V.B., inzh.,
retsenzent; BORODAVCHENKO, P.I., inzh., retsenzent;
CHAPKEVICH, A.A., kand. tekhn. nauk, red. [deceased]; FAL'KO,
O.S., red. izd-va; MODEL', B.I., tekhn. red.

[Agricultural machinery] Sel'skokhozyaystvennye mashiny. [By]
I.S.Ivanov i dr. Moskva, Mashgiz, 1962. 683 p.
(MIRA 15:11)

1. Rostovskiy-na-Donu tekhnikum sel'skokhozyaystvennogo ma-
shinostroyeniya (for Zurab'yan, Korneyev). 2. Lyuberetskiy
tekhnikum sel'skokhozyaystvennogo mashinostroyeniya (for
Borodavchenko).
(Agricultural machinery)

ETTINGER, Ye.L., kandidat tekhnicheskikh nauk; GUTKIN, B.M., kandidat
tekhnicheskikh nauk; Borodavchenko, P.M., inzhener.

~~Present-day systems of rectifier drives. Elektrichestvo no.9:~~
32-38 S '56. (MLRA 9:11)

1. Tsentral'noye konstruktorskoye byuro "Elektroprivod" Minister-
stva elektromyshlennosti.
(Mercury-arc rectifiers)

BORODAVCHENKO, P. M.

021 34 : 021 373 3 021 374 4

4684. MODERN CIRCUITS OF RECTIFIER-SUPPLIED
ELECTRIC DRIVES 1-9

E. I. Ettlinger, E. M. Gutkin and P. M. Borodavchenko.
Elektrichestvo, 1987, No. 1, 60-6. In Russian.

Circuits for integrating (summing), forming and amplifying signals are considered and industrial and experimental rectifier-controlled drives using these circuits are described. The amplifiers are of the electronic or magnetic type. In the first model the use of an electronic amplifier is rendered possible by a special static phase-regulator. It is also possible that with this phase-regulator germanium triodes may also be used as amplifiers. The integrating (summing) magnetic amplifier and its operation in combination with the phase-regulator are considered with reference to the matching of their characteristics. An incorrect operation of the control system may be obtained by one of two methods, viz. by using a summing magnetic amplifier of a type with oblique characteristics in the range of negative controlling voltages (currents), or by "electric" instead of "magnetic" summing of the controlling and regulating signals by inserting a semiconductor-type rectifier into the control winding, which is thereby biased. A two-stage half-wave electronic amplifier with feedback stabilization is then described. Further experimental types discussed are two-stage magnetic amplifiers to operate with two electronic converters, and a bridge-type magnetic amplifier circuit. Applications described are to rotary machines (printing presses) and lift drives.

B. F. Kraus

SUYETIN, T.A., kand.fiziko-matematicheskikh nauk; BORODAVCHENKO, P.M., inzh.
YAKOVLEV, A.N., inzh.

Mercury arc rectifier for industrial installations. Vest.elektroprom.
31 no.3:7-11 Mr '60. (MIRA 13:6)
(Electric current rectifiers)

BORODAVCHENKO, P.M., inzh.

Controllability of electronic rectifiers and parameters of the grid
circuit. Vest. elektroprom. 34 no.5:38-41 My '63. (MIRA 16:5)
(Electric current rectifiers)

BORODAVCHENKO, P.M., inzh.

~~Effect of the asymmetry of the control angles on the operation~~

Effect of the asymmetry of the control angles on the operation
of three-phase rectifiers. Elektrotehnika 36 no.8:37-39 Ag '64.
(MIRA 17:9)

REBROV, Sergey Alekseyevich,; BORODAVKA, A.S., inzh., retsenzent,; DENISENKO,
L.P., inzh., retsenzent,; OL'SHANSKIY, M.A., inzh., retsenzent,;
SHPOLYANSKIY, M.N., inzh., retsenzent,; ALEKTOROV, V.A., kand. tekhn.
nauk, red.; SERDYUK, V.K., inzh., red.

[Trolley buses] Trolleibussy, Kiev, Gos. nauchno-tekhn. izd-vo
mashinostroit. lit-ry, 1958. 278 p. (MIRA 11:11)
(Trolley buses)

BOROTAVKA, A.S.

Mobile traction substations. Zhil.-kom. khoz. 8 no.12:11-12
'58. (MIRA 13:1)

1. Glavnyy inzhener podstantsiy Kiyevskogo tramvayno-trolleybusnogo
upravleniya.

(Kiev--Electric substations)

LAZAREV, S.V.; BORODAVKIN, A.N.; DROZNIN, Ye.A.

Potentialities of cost reduction of the production of metallurgical
plants. Stal' 22 no.12:1124-1128 D '62. (MIRA 15:12)
(Iron industry—Costs) (Steel industry—Costs)

LAZAREV, S.V.; BORODAVKIN, A.N.; DROZNIN, Ye.A.

Potentialities of cost reduction of the production of metallurgical
plants. Stal' 22 no.12:1124-1128 D '62. (MIRA 15:12)
(Iron industry—Costs) (Steel industry—Costs)

LAZAREV, S.V.; BORODAVKIN, A.N.; DROZNIN, E.A.

Some problems of wrk organization at the Dzerzhinskii and
Zaporozhstal' metallurgical plants. Stal' 23 no.2:172-173
F '63. (MIRA 16:2)

(Dneprodzerzhinsk--Iron and steel plants--Management)
(Zaporozh'ye--Iron and steel plants--Management)

BORODAVKIN, Andrey Nikitich; KAZANKOVA, K., otv. red.; SHATROVA, T.,
red.izd-va; TELEGINA, T., teann. red. ...

[Analysis of the utilization of the working capital of an
enterprise] Analiz ispol'zovaniia oborotnykh sredstv pred-
priatiia. Moskva, Gosfinizdat, 1963. 87 p. (MIRA 16:5)
(Finance)

BORODAVKIN, M., podpolkovnik

Some remarks and proposals. Tyl i snab. Sov. Voor. Sil 21
no.11:52-53 N '61. (MIRA 15:1)
(Russia--Army--Military life)

BORODAVKIN, M.

They are working in the communist way. Metallurg 7 no.11:37-40
N '62. (MIRA 15:10)

(Iron and steel workers)

BORODAVKIN, M.

Beacon of iron metallurgy. NTO 4 no.12:21-24 D '62. (MIRA 16:1)

1. Spetsial'nyy korrespondent zhurnala "Nauchno-tehnicheskiye
obshchestva SSSR".

(Krivoy Rog Basin—Iron and steel plants)

BORODAVKIN, M.

Instructive results. NTO 4 no.9:13-14 S '62. (MIRA 16:1)
(Podol'sk--Knit goods industry)

LISOVSKIY, A.S.; TSUKANOV, T.T.; BORODAVKIN, M.A.; ZAZHIRKO, V.N.;
LISUNOV, V.N.; SOLONENKO, G.I.

Remote control of dump car unloading from the operator's
cab of electric locomotives. Trudy TEIIZHT 34:145-151 '62.
(MIRA 16:8)

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A161/A130

AUTHORS: Borodavkin, N. A., Engineer; Vishnevskiy, S. N., Candidate of Econo-
mical Sciences; Nikitin, P. F.

TITLE: Special additives for chromium plating process

PERIODICAL: Vestnik mashinostroyeniya. no. 12, 1960, 75 - 76

TEXT: The special additives concerned are pellets consisting of sodium bi-carbonate (65%) and a foaming aromatic sulfo-acid. Their effect has been tested at industry plants and in research institutes, and the conclusion is that the addition brings about 37% economy of chromic anhydride without affecting the chromium deposition process in bath, the appearance of the deposit, or the bond with the base metal. Hitherto, the chromic anhydride losses with dust into air reached 50% and poisoned the shop air. Powerful exhausting fans were needed. The 50% losses were also a problem of costs, for chromic anhydride is the major component of electrolyte for decorative chromium plating. The additive is lost only with parts removed from the bath. It is recommended to add about 3 g/l at 30 - 40°C bath temperature. The foam layer disappears rapidly as soon as electric current is cut off. Additions are to be made three in equal portions every 30 min to prevent

Card 1/2

Special additives for chromium plating process

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foam from splashing out. It was stated in 1.5 months tests at the Moskovskiy zavod malolitrazhnykh avtomobiley (Moscow Low-Displacement Car Plant) that the additive reduced abruptly the formation of mist above the bath and the consumption of chromic anhydride was reduced to 35 - 40%. The Moskovskiy avtomobil'nyy zavod imeni Likhacheva (Moscow Automobile Plant imeni Likhachev) also tested the additive in chromium plating of grey cast iron piston rings. There is 1 table.

Card 2/2

SECRET
BORODAVKIN, P.P., inzh. (Rostov-na-Donu)

Determining weighting for underground gas pipelines. Stroi.pred.
neft.prom. 2 no.8:3-5 Ag '57. (MIRA 11:1)
(Gas pipes)

BORODAVKIN, P. P., Cand. Tech. Sci. (diss) "Phenomena Occurring in Water-saturated Earthen Mass During Application to It of Excavation Efforts," Leningrad, 1961, 13 pp (All-Union Sci. Res. Inst. of Hydraulic Engr.) 220 copies (KL Supp 12-61, 263).

BORODAVKIN, P.P. (Leningrad)

Unstabilized settling of buildings. Osn., fund.i mekh.grun. 3 no.2:
24-25 '61. (MIRA 14:5)

(Foundations)

BORODAVKIN, P.F., inzh. (g.Ufa)

Laying a petroleum pipeline across the Belaya River. Stroi. truboprov. 6 no.9:16-17 S '61. (MIRA 14:9)
(Belaya Valley--Pipelines)

USSR
BORODAVKIN, P.P., inzh. (Ufa); YABLONSKIY, V.S., doktor tekhn.nauk (Ufa)

Stresses in an overhead pipeline as a result of temperature
changes during operation. Stroi. truboprov. 7 no.7:16-18
Jl '62. (MIRA 15:7)

(Thermal stresses)
(Pipelines)

BORODAVKIN, P.P. (Ufa); BYKOV, L.I. (Ufa); YABLONSKIY, V.S. (Ufa)

Calculations for the stability of underground pipelines. Stroi.
truboprov. 8 no.5:21-24 My '63. (MIRA 16:5)
(Pipelines)

YABLONSKIY, V.S. [deceased]; KHARLAMENKO, V.I.; GALLYANOV, A.K.; BORODAVKIN,
P.P.

Tensimetric pressure measurement in flows of viscous and solidi-
fying petroleums and petroleum products. Transp. i khran. nefti
no.7:9-12 '63. (MIRA 17:3)

1. Ufimskiy neftyanoy institut.

BORODAVKIN, P.P.

Determining the losses from prestressing in the ring reinforcement of reinforced concrete cylindrical tanks for the storage of petroleum products. Trudy NIITransneft' no.3: 7-24 '64.

(MIRA 18:2)